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REMARKS

Claims 1-17 are pending in this application. By this Amendment, Applicant CANCELS claims 18-22.

Applicant greatly appreciates the Examiner's indication that claims 9, 15, and 16 would be allowable if rewritten in independent form including all of the features of the base claim and any intervening claims.

Claims 1 and 3-5 were rejected under 35 U.S.C. § 102(b) as being anticipated by Anderson et al. (U.S. 5,969,461). Claims 2, 6-8 and 17 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Anderson et al. Claims 10-14 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Anderson et al. in view of Tsuji et al. (U.S. 5,699,027). Applicant respectfully traverses the rejections of claims 1-8, 10-14 and 17.

Claim 1 recites:

"A surface acoustic wave device comprising:
a surface acoustic wave element including a piezoelectric substrate having interdigital electrodes and electrode pads thereon, the electrode pads being arranged to input and output electrical signals to and from the respective interdigital electrodes;
an electronic component package supporting the surface acoustic wave element, the electronic component package including electrode pattern sections arranged to input and output electrical signals; and
metal bump connections electrically connecting the electrode pads to the respective electrode pattern sections;
wherein **the electrode pads include aluminum as a major component and copper as a minor component, the copper content being at least about 3.5 percent by weight.**" (emphasis added)

Applicant's claim 1 recites the feature of "the electrode pads include aluminum as a major component and copper as a minor component, the copper content being at least about 3.5 percent by weight." With the improved features of claim 1, Applicant has been able to provide a highly reliable surface acoustic wave made by a flip chip process (see, for example, the second full paragraph on page 5 of the Specification).

The Examiner has alleged that Anderson et al. teaches that "the electrode pads

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include aluminum as a major component and copper as a minor component, the copper content being at least about 3.5 percent by weight" as recited in Applicant's claim 1.

The Examiner has relied upon lines 56-61 of column 2 of Anderson et al. which states that the "stud bumps comprise a metal or alloy containing at least one of gold, aluminum, and copper" to support his allegation. However, the Examiner is pointed to MPEP § 2131.03 which states "[w]hen the prior art discloses a range which touches, overlaps or is within the claimed range, but no specific examples falling within the claimed range are disclosed, a case by case determination must be made as to anticipation" and that "[i]n order to anticipate the claims, the claimed subject matter must be disclosed in the reference with 'sufficient specificity to constitute an anticipation under the statute.'"

Anderson et al. clearly fails to give any examples of an alloy within Applicant's claimed range. In fact, the only specific example that Anderson et al. teaches is that is preferable to use stud bumps made of only gold because gold is "(i) chemically inert (ii) visible on X-ray photographs for defect analysis and (iii) robust during subsequent encapsulation processes" (lines 61-64 of column 2). Thus, Anderson et al. clearly fails to teach with any specificity Applicant's claimed ranges for aluminum and copper.

Accordingly, Applicant respectfully requests reconsideration and withdrawal of the rejection of claim 1 under 35 U.S.C. §102(b) as being anticipated by Anderson et al.

In anticipation of the Examiner relying upon Anderson et al. in an obviousness type rejection, Applicant reminds the Examiner that the Examiner must provide evidence that the content of aluminum and copper in electrode pads are art recognized result effective variables. MPEP § 2144.05.

The Examiner has relied upon Tsuji et al. to cure various deficiencies of Anderson et al. However, Tsuji et al. clearly fails to teach or suggest "the electrode pads include aluminum as a major component and copper as a minor component, the copper content being at least about 3.5 percent by weight" as recited in Applicant's claim 1.

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Accordingly, Applicant respectfully submits that Anderson et al. and Tsuji et al., applied alone or in combination, fail to teach or suggest the unique combination and arrangement of elements recited in claim 1 of the present application. Claims 2-17 depend upon claim 1, and are therefore allowable for at least the reasons that claim 1 is allowable.

In view of the foregoing amendments and remarks, Applicant respectfully submits that this application is in condition for allowance. Favorable consideration and prompt allowance are solicited.

To the extent necessary, Applicant petitions the Commissioner for a TWO-month extension of time, extending to April 14, 2003, the period for response to the Office Action dated November 14, 2002.

The Commissioner is authorized to charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 50-1353.

Respectfully submitted,

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